REMARKS

Applicants have considered the outstanding official action and respectfully submits that the application is in condition for allowance as set forth below. Applicants thank the Examiner for his consideration provided at the interview on September 5, 2006 with the inventor and undersigned. The matters raised in the official action will be addressed herein in the order of their occurrence.

The drawings are objected to under 37 CFR §1.83(a) as not showing certain claimed features, i.e., suction openings as at claim 1, line 26; glue applicator as at claim 1, line 34; annular bands as at claim 5, lines 4-6; and plurality of pressers as at page 5, lines 6-7.

Applicants note that suction openings in the first winding roller 1 are shown in Figure 1. Applicants are submitting herewith a replacement sheet for Figure 1 wherein the suctions openings have been designated with the reference number "18". Further, the specification has been amended at page 6 to insert the reference number "18" into the description. Approval of the corrected Figure 1 is requested.

The reference to the glue applicator in claim 1 has been deleted and claim 5 has been canceled. Applicants note that while specific reference to these features have been removed from the claims, that such remains encompassed by the scope of the claims since the claims are open for the inclusion of other unnamed features.

Withdrawal of the objection to the drawings is respectfully requested.

The Abstract has been amended to remove certain claim terminology, e.g. "comprising" and "said". The Abstract is based on the Abstract present in the parent PCT application published as WO 2004/005172 A1.

The outstanding rejections based on art are as follows:

(1) Claims 1-5 and 7-14 under 35 U.S.C. §103(a) over WO 94/21545 (Perini) in view of U.S. Patent No. 6,056,229 (Blume) and U.S. Patent No. 5,542,622 (Biagiotti); and

(2) Claim 6 under 35 U.S.C. §103(a) over Perini in view of Blume and Biagiotti as applied above and further in view of U.S. Patent No. 4,611,638 (Matumura).

Initially applicants note that claims 1-14 have been canceled and replaced by new claims 15-22. Claims 15

and 20 are independent and are directed to a rewinding machine and a method for producing logs of wound web material, respectively. Dependent claim 19 includes the same added limitation of prior dependent claim 6. Applicants respectfully submit that the claims are directed to patentable subject matter as set forth below.

The rewinding machine to form logs of wound web material as claimed includes a first winding roller and a second winding roller with a nip defined therebetween through which web material is fed. A surface extending upstream of the nip, in relation to the direction of feed of the web material, defines with the first roller, a channel into which winding cores are fed. The channel includes an inlet and an outlet. A core feeder feeds winding cores towards the channel. A pinch member is present to pinch the web material between the pinch member and the first winding roller. The pinch member is arranged upstream of the channel and is arranged to periodically pinch the web material upstream of the channel. The pinch member has a speed which is lower than a peripheral speed of the first winding roller when pinching the web material. The first winding roller has suction openings in a cylindrical surface thereof and a suction box inside the roller. The suction box is arranged to retain a leading edge of the web material

and to transfer the leading edge to a new core introduced into the channel by the core feeder.

The method for providing logs of wound web material includes that upon termination of winding a first log, tearing of the web material to form a web leading edge and a web trailing edge. The tearing is provided by arranging a pinch member acting on the web material upstream of a channel into which winding cores are fed and periodically pinching the web material between the pinch member and the first winding roller. The pinch member has a speed lower than a peripheral speed of the first winding roller when pinching the web material. The web material tears downstream of the pinch member. The leading edge is retained by suction on the first winding roller and then anchored on a new winding core.

The applied art does not teach or suggest the rewinding machine or the method as claimed.

More specifically, Perini does not teach or suggest a pinch member upstream of a channel, suction openings in a first winding roller or a suction box inside the first winding roller arranged to retain a leading edge of a web material.

Blume does not teach or suggest a pinch member arranged to pinch web material between the pinch member and

a first winding roller, suction holes in the first winding roller, or a suction box inside the first winding roller. Blume teaches (as shown in Figure 1) a member 30 including a core engaging surface 32 and pinch pad 33. The member 30 is moved as shown by the sequence of Figures 1, 2 and 3 from a lower position to an upper position where the pinch pad pinches a web material between the pinch pad 33 and a stationary pinch surface 24 causing slackening of the web material as shown in Figure 4. The structure described in Blume is taught to avoid interference between the core feeder and web separator by providing these features in one common structure. Such interference, however, is not a problem in Perini since the web separator 43 is spaced downstream of the core feeder 67 and holds the leading edge NL once provided in place until a new core is inserted (Figures 2 and 3).

Biagiotti teaches a coreless rewinding machine and further teaches tearing of the web material by moving and pressing a second winding roller 103 against a new coreless log R2 being wound. When a suction hole 203 is present, as shown in the embodiment of Figure 7, the suction opening is upstream of the web tear and thus functions the same as roller 201 in Figure 1, i.e., serves to avoid slackening of

the web material. Thus, no effect on the leading edge is present.

Accordingly, no teaching or suggestion is provided by the applied art of Perini, Blume or Biagiotti to modify the primary reference Perini in a manner to obtain applicants' claimed rewinding machine and method. Further, U.S. Patent No. 4,487,377 (Perini '377) (which was cited but not applied) while teaching suction, also requires synchronism between the speeds of the first winding roller 41 and the cutting roller 43 and mating of the cutting blade 45 with a channel 46 in the first winding roller to provide cutting of the web material. Additionally, glue bands on the core have to mate with grooves in the winding rollers to prevent loss and build-up of glue on the rollers.

The present invention provides advantages over the cited art by providing flexibility in the number of windings on a core, placement of perforations, and manner of glue application as well as providing such in a more compact machine requiring less space for operation.

In view of the lack of teaching or suggestion for selecting isolated components from the cited art and further modifying them in order to provide applicants' claimed rewinding machine and method, applicants respectfully submit that the claims are not rendered obvious within the meaning

of 35 U.S.C. §103. Withdrawal of the §103 rejection, therefore, is requested.

As to the rejection of dependent claim 6 (now dependent claim 19) over Perini, Blume and Biagiotti as applied above and further in view of Matumura, applicants resubmit as above set forth as to Perini, Blume and Biagiotti. Matumura is relied on with respect to the added limitation of claim 6, i.e., the distribution of suction openings over an entire circumferential extension of the first winding roller. Applicants submit that Matumura does not add to the teachings of the primary references and further does not teach or suggest the additional feature of suction holes over the circumference of a first winding roller. Matumura is directed to a take-up cylinder with a plurality of perforations therein in a form for holding cloth thereto so as to allow automatic winding of the cloth on the cylinder. Applicants' claimed machine and method provide for winding on a core not a perforated cylinder. No teaching or suggestion is provided by the applied references to modify a loom cloth roller as described for application in a rewinding machine as claimed. Accordingly, withdrawal of the §103 rejection based on a combination of Perini, Blume, Biagiotti and Matumura is requested.

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Applicants are submitting herewith a reference recently turned up, Italian Published Application MI95001174 published December 6, 1996 and patented as IT1275313 on August 5, 1997. The Italian publication discloses a combined core inserter and presser arm for inserting a core and breaking a web material between first and second winding rollers. No suction is disclosed for use with the rewinding apparatus. The teachings of the Italian application are submitted to be cumulative to the teachings of and U.S. Patent No. 6,945,491 (Gambini) which has been cited by the Examiner. A PTO Form 1449 listing the Italian reference is also attached.

Reconsideration and allowance of the application is respectfully requested.

Respectfully submitted,

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Attachments - Figure 1 (Replacement Sheet)
- ITMI95001174
- PTO Form 1449